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ABSTRACT

This report presents data on the costs of follow-up studies, based on 29 separate follow-up studies conducted by eight public community/junior colleges in Texas. The purpose of this study, conducted by Navarro College as a subcontractor of Project FOLLOW-UP, was to provide data and information regarding the cost of follow-up studies that would be of use to other institutions and planning agencies. Three types of studies were examined: in-house surveys, mail out surveys, and personal interview surveys. Several variables were considered, including: administrative salaries and benefits, printing costs, computer expense, supply expense, travel expense, and telephone expense. Costs associated with each type of study per attempted contact and per response by the method of processing used are included in an appendix. Among the recommendations in this report is a formula for funding of follow-up studies. The data presented here are not absolute, final data by which follow-up study cost effectiveness can be measured. It is hoped that this information will nevertheless be useful to institutions wishing to examine study costs. (JDS)

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SC5
Follow-up Costs
By Navarro College

JC 760 481

PROJECT FOLLOW-UP

MANAGEMENT INFORMATION SYSTEM

FOLLOW-UP COST STUDY

BY

NAVARRO COLLEGE

CORSICANA, TEXAS

Prepared

By

Ronald C. Baugh

Director of Administrative Services

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August 1976

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INTRODUCTION

While the most important product of follow-up studies is the accumulation of data for self evaluation purposes, one cannot overlook the fact that to perform such studies can be costly. Not only the large schools, but also the medium sized and smaller schools are concerned with the ever increasing cost of financing their operations. To cope with this problem, all schools need to be able to plan ahead. To do this effectively, information is needed as to the types and amount of cost that may be involved. Due to this line of reasoning Navarro College applied for and received a subcontract to collect and analyze cost data as it relates to performing follow-up studies.

This report is, therefore, written with the intent to provide schools that anticipate being involved in follow-up studies with a tool for planning ahead. Presented within this report is follow-up cost information as collected from eight public community/junior colleges in the State of Texas as it related to some twenty-nine separate follow-up studies conducted by them.

The data presented here cannot and should not be considered as absolute, final data by which the cost effectiveness of all follow-up studies can be measured. Rather, it is a factual

presentation of the data collected as it relates to the aforementioned follow-up studies.

It is hoped that the information and data presented in this report will enable any institution participating in follow-up studies to examine its own cost and evaluate that cost as it relates to that institutions' needs and desires.

PURPOSE AND OBJECTIVES

The purpose of this subcontract was to provide data and information that could be utilized by other institutions and planning agencies to plan ahead with regards to the cost of conducting follow-up studies. Specific objectives established to carry out this purpose were:

1. Design a reporting system to collect cost and manhour data as it related to the carrying out of follow-up functions by six other subcontracting institutions.
2. Collect and analyze data with the intent of establishing actual cost and time requirements to perform follow-up functions.
3. Relate cost factors with other variables with the intent of suggesting possible methods of funding follow-up studies.
4. Suggest methods whereby other institutions may collect and evaluate cost data as it relates to their own follow-up functions.
5. Accumulate cost information from institutions and agencies outside of Texas for comparison purposes.

Although not all of these objectives were accomplished in the manner desired, the overall study can be judged successful in that the data and information presented should

prove to be useful for the stated purpose of planning ahead.

DEFINITIONS

So that all readers of this report might have an equal understanding of the information presented here, the following definitions are provided:

Phase - It was assumed that each follow-up study passes through three stages. These stages being Development, Implementation, and Operation are referred to as phases in this report.

Development - This phase will primarily consist of brainstorming sessions for the purpose of making initial plans. This phase includes the development and design of forms and questionaires and the writing of computer programs to print questionaires and/or analyze data.

Implementation - This phase consists of the remaining functions necessary to get ready to start your follow-up system. Some of the functions to be included in this phase are: production of initial supply of forms, initial purchase of needed supplies, adaption of other systems to your own to include adaptation of computer programs, etc.

Operation - This phase consists of the functions necessary to start your follow-up system and place your plan of action into operation. This phase includes the performance of your follow-up plan, the resupply of forms and supplies, cost of analyzing data collected, cost of preparing and disseminating reports, etc.

Attempted Contact - This consists of a total of all individuals you plan to contact in your follow-up study.

Cost Per Attempt - The actual cost divided by the number of attempted contacts.

Cost Per Response - The actual cost divided by the number of responses you receive from your attempted contacts.

COLLECTION OF DATA

The first activity consisted of gathering as much information as possible concerning cost and manhour requirements for conducting follow-up studies that had been conducted in other states. This included writing many schools and agencies in various states to determine what data if any was available. This was done with the hope of obtaining data that would assist in designing proper reporting forms and data that might be used for comparison purposes. This undertaking was not nearly as fruitful as had been hoped. Although, several different follow-up studies had been performed in various states, very little cost and manhour data had been collected.

In designing the reporting forms (Appendix I) to be utilized in collecting data from the other subcontracts, certain assumptions had to be made. It was assumed that follow-up studies would pass through three distinct phases: Development, Implementation, and Operation. Consequently, the reporting forms were designed to collect data on this basis. To assist in avoiding inconsistencies as to the type of data to be reported in each phase, the general definitions of Development, Implementation, and Operation presented earlier were derived.

The project director at each of the subcontracting institutions was provided copies of the reporting forms and the definitions. They were asked to return the completed

forms along with a brief narrative of activities by phase at the end of each calendar quarter.

The assumption that follow-up studies would pass through three distinct phases was made in part to assist in developing logical breaking points for funding purposes. That is to say, if and when funding of follow-up activities becomes a reality, the funding agency most likely would consider the development phase to have been performed to the extent necessary by Project Follow-Up subcontractors and staff and therefore, might not consider those cost for funding purposes. It was also assumed that the implementation phase may only need to be funded one time or at most only periodically.

However, the basic assumption of three distinct phases seems to be in error. There now appears to be only two seperate and distinct phases, Development and Operation. The Implementation phase previously defined is now absorbed into the Operation phase. Therefore, Development is now considered to consist of those cost that might be considered as one time cost. One time cost includes such things as original design of questionaires and forms and original programing to print and/or analyze data collected. The Operation phase then consists of those cost that are considered to be continuing or on-going cost. Continuing or on-going cost includes such things as printing forms and questionaires, purchasing supplies, changing of forms and questionaires when needed, changing of computer programs, etc.

The need for only two phases came about as a result of realizing that no matter how good your original forms, questionaires, and computer programs might be there is always a need to continually update and change to meet more current needs and desires. The need to update consistently places the institution back into the Implementation phase. Therefore, it was decided to combine the Implementation and Operation phases into one phase called the Operation phase. However, it is still felt that the Development has been funded to the extent necessary and only the Operation phase as now defined needs to be considered for funding purposes.

In viewing the reporting forms contained in Appendix I, one can see the various types of cost that were collected for this study. In addition to cost and time data collected on these forms, each participant provided information regarding the number of attempted contacts and the number of responses received.

TYPES OF STUDIES

There were three types of response studies conducted during the course of Project Follow-Up. The three types were in-house surveys, mail out surveys, and personal interview surveys.

The in-house surveys consisted of all studies collecting information from students who were currently enrolled and were present on campus at the time of the survey. These studies were usually carried out by personnel in the registrar's office, counselor's office, or in the class-

room. Examples of this type of study includes course withdrawal, college withdrawal, and student educational intent surveys.

The mail out surveys consisted of all studies collecting information from individuals who were not currently enrolled and were not present on campus at the time of the survey. These studies were conducted by performing three or four mail outs to the individual. A typical mail out survey consisted of mailing a questionaire, followed by a postcard reminder within two weeks to those who had not yet responded, followed by an additional questionaire within the next two weeks to the remaining non-respondents. Examples of this type of study includes graduate, walk-off, and employer surveys.

The personal interview survey consisted of studies conducted by either telephoning the individual to be surveyed or personally visiting the individual. Only two personal interview studies were conducted during Project Follow-Up. One was an employer survey and the other a graduate study. The employer survey was conducted with the employers of graduated students who had previously responded to a mail out survey identifying their employer by name and address. The graduate survey was part of a random sampling technique utilized to establish sample bias created by non-respondents to a mail out survey.

More details concerning the actual conduct of these studies is available in the various subcontractors reports.

VARIABLES TO CONSIDER

Before presenting the actual cost data, it is necessary to explain some of the variables involved and the effect they can have on the overall cost of follow-up studies.

The simple fact that salaries and benefits were included in the cost study created a wide range of cost per attempted contact and cost per response figures. This is due to the fact that various institutions assigned the task of performing follow-up studies to various levels of personnel. For example, some institutions directly involved a full-time professional employee such as a Director of Research or a Director of Placement, while others involved only a secretarial or clerical level employee to perform the actual survey. This fact easily accounted for a two and three times higher salary cost at some institutions than at others. This one variable was directly responsible for creating a greater range of cost per attempt and cost per response figures than all the other variables involved. It frequently reflected a doubled and even tripled cost figure.

Another variable that affected the cost figures was whether or not an institution had its own printing capability. Although this variable only affects cost figures by a few cents it nonetheless must be considered when attempting to plan ahead.

Various institutions account for computer expenses in various ways. Some charge for CPU time as well as personnel

and supplies cost, while others charge a monthly rate by department regardless of the amount of usage. There, of course, are many other methods which can be considered. Depending on the method used the cost figures fluctuated by as much as a half-dollar per response. Then, of course, not all institutions had computer capabilities which definitely had an affect on cost.

A typical example of the variance of the cost of computer verses manual processing occurred with an in-house survey of 192 students. The total cost per response with manual processing was $1.75 and with computer processing was $2.09. The computer processing accounted for a thirty-four cent per response higher cost than manual processing. At the same institution an in-house survey of 293 students, resulted in a ten cents per response higher cost for computer processed over manually processed data. The cost per response in the 293 student survey was $1.38 with manual and $1.48 with Computer processing. However, when additional in-house surveys of 1,501 and 5,062 students occurred at the same institution, the cost per response dropped to eighty-four cents and twenty-seven cents respectively when computer processing was used. Although these last two surveys were not manually processed, the cost per response would probably have been greater than it was for computer processing. Basically, two conclusions can be drawn from this example, volume alone can serve as a variable that affects cost and there is probably some optimum number where below that number manual processing is cheaper than computer processing but above that number computer processing is cheaper

than manual. These conclusions should hold true regardless of the manner of accounting for computer cost, but the optimum number will vary depending upon the accounting method used.

Another factor that creates a variance in cost figures is postal cost. Since there are different classes of mail which results in different cost, the class used can have an effect on cost per response figures. However, the class used can feasibly have an effect on response rates also. Although, no definitive data was collected to determine the actual cost difference, one study conducted comparing bulk rate to first class indicated that the money saved by virtue of using bulk rate was almost totally expended in personnel cost to sort and bundle the bulk rate mail.

The ever increasing cost of the postage stamp also will have a definite effect on cost figures. A study of six of the mail out surveys revealed that $1,757.46 was spent for postage. These six studies were conducted before January 1, 1976. Considering the postal increase that has occurred since that time, current mail cost would be $2,284.69, which would result in a 6.9¢ increase in the cost per attempted contact and a 13.1¢ increase in the cost per response. These increases represent a 1.7% increase in cost per attempt and response.

The subcontractors also utilized various techniques in attempting to increase response rates. A couple of examples of this include providing a pencil to complete the questionaire and providing a packet of coffee to encourage the individual to have a cup of coffee while completing the questionaire.

These items can also have an affect on cost figures.

Although, the variables mentioned here are not all inclusive they help to understand that there are many factors that can affect cost figures.

PRESENTATION OF DATA

The data presented in Table I of Appendix II reflects the cost per attempted contact and the cost per response by the method of processing used for each of the three types of studies. There are two cost per attempt and cost per response figures given in each group. One of these figures is total cost which includes development and operation expenses as described earlier and the other is operation expenses only. Since the total number of attempted contacts and responses was the same for In-House studies and for Personal Interview studies, the cost per attempt and cost per response is the same.

Input from out-of-state sources for comparison purposes reflected a total cost per attempt of $4.37 and a total cost per response of $8.23. These figures would be compared to the $4.454 per attempt and $8.148 per response gathered from in-state sources.

Table II in Appendix II illustrates a percent breakdown by type of expenditures reported by the subcontractors who participated in mail out surveys. This table is provided to give some insight as to how one might have to budget available

funds for follow-up studies.

CONCLUSIONS AND RECOMMENDATIONS

The data presented here cannot and should not be considered as absolute, final data by which the cost effectiveness of all follow-up studies can be measured. The previous sentence is a repeat of a statement contained in the introduction. At this point in the report, it should be obvious that each institutions cost will probably be as unique as its own operating budget. The variables mentioned earlier are dealt with differently at almost every institution. Therefore, the data presented here provides a place from which one can start planning ahead. It is recommended, however, that each institution collect cost data about its own operation in order to formulate meaningful cost data as it relates to that institution. When evaluating your own cost, insure that sufficiently detailed data is collected to develop meaningful information. This can only be done if every minute of time and every penny of expense is recorded and considered in the final evaluation.

When considering possible methods of funding follow-up studies, every attempt to establish a relationship between the number of students followed-up, and the cost for such, and the number of students enrolled, full-time student equivalents, or contact hours produced proved to provide no useful information. This proved to be true partially because the population followed-up at each institution was not

synonomous in any form, fashion, or shape. Therefore, before a funding method that will treat each institution impartially can be derived, the population to be followed-up must be identified. After identification of the population, another attempt to relate cost figures to contact hours may prove to be useful.

A funding system based on an identified population needs only one additional piece of information. That piece of information is a funding rate. For example, let us assume that the population to be followed-up is each individual who graduated from a public community/junior college with a degree, diploma, or certificate in the state during the fiscal year beginning September 1, 1974 and ending August 31, 1975 and that the formula rate is the $3.248 per attempted response established for mail out studies in this report. The number of graduates from each institution is available in the "Statistical Supplement to the Annual Report of the Coordinating Board, Texas College and University System for Fiscal Year 1975." The total number of graduates statewide was 18,325. Therefore, the expected state wide cost to follow up these students would be $3.248 X 18,325 which is $59,519.60. This report indicates that Navarro College graduated 227 students during this time. Therefore, Navarro College would receive $3.248 X 227 which is $737.30 to perform a one-year follow-up of these students.

If this method of funding is considered, it will probably be necessary to establish a reporting method to identify the

number of students to be followed up at each institution.

APPENDIX I

DATA GATHERING INSTRUMENTS

F O L L O W - U P
Cost Sheet

PHASE: DEVELOPMENT _____, IMPLEMENTATION _____, OPERATION _____

Beginning Date Of This Quarter _____

Ending Date Of This Quarter _____

SALARIES:		AMOUNT*
Administrative:		_____
Clerical:		_____
_____:		_____
_____:		_____
_____:		_____
EQUIPMENT:		_____
SUPPLIES:		_____
COMMUNICATIONS:	Mail	_____
	Telephone	_____
	Other	_____
SERVICES:	Duplication	_____
	Computer	_____
	Other	_____
TRAVEL:		_____
FRINGE BENEFITS:	Social Security	_____
	Retirement	_____
	Workman's Comp	_____
	Other	_____
TOTAL		_____

Signature of Director: _____

i

F O L L O W - U P
Quarterly Time Sheet

Institution's Name _____

Beginning Date Of This Quarter _____

Ending Date Of This Quarter _____

1. DEVELOPMENT

CATEGORY	# of PERSONNEL	# of HOURS
Administrative		
Clerical		

2. IMPLEMENTATION

CATEGORY	# of PERSONNEL	# of HOURS
Administrative		
Clerical		

3. OPERATION

CATEGORY	# of PERSONNEL	# of HOURS
Administrative		
Clerical		

The blank spaces below Clerical are to be utilized for other types of personnel. If these spaces are used, please specify the type of personnel. Please provide a brief narrative explaining the type of activities performed in each phase during this quarter.

Signature of Director: _____

APPENDIX II

TABLES OF DATA

Type	Cost		Contacts		Total Cost Per		Operation Cost Per	
	Total	Operation	Attempts	Responses	Attempt	Response	Attempt	Response
In House								
Computer	$ 3,417.99	$ 1,397.99	7,048	7,048	$ 0.485	$ 0.485	$ 0.198	$ 0.198
Manual	738.84	418.84	485	485	1.523	1.523	0.864	0.864
Total	$ 4,156.83	$ 1,816.83	7,533	7,533	$ 0.552	$ 0.552	$ 0.241	$ 0.241
Mail Out								
Computer	$63,800.01	$46,482.55	14,234	7,780	$ 4.482	$ 8.201	$ 3.266	$ 5.975
Manual	606.53	483.62	227	125	2.672	4.852	2.130	3.869
Total	$64,406.54	$46,966.17	14,461	7,905	$ 4.454	$ 8.148	$ 3.248	$ 5.941
Personal Interview								
Computer	$ 7,770.21	$ 5,662.31	271	271	$28.672	$28.672	$20.894	$20.894
Manual	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Total	$ 7,770.21	$ 5,662.31	271	271	$28.672	$28.672	$20.894	$20.894

TABLE I

TABLE II

Percentage of Expenditures by Type

Type of Expenditure	% of Total Expense	% of Operation Expense
Salaries and Benefits	74.6%	70.4%
Supplies	4.9%	9.3%
Mail	3.8%	5.2%
Telephone	1.4%	1.3%
Duplication	2.6%	3.5%
Computer	7.7%	8.2%
Travel	5.0%	2.1%

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LOS ANGELES

OCT 15 1976

CLEARINGHOUSE FOR
JUNIOR COLLEGES